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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,766	02/28/2005	Kunihiko Horikawa	8048-1078	9959

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YOUNG & THOMPSON  
745 SOUTH 23RD STREET  
2ND FLOOR  
ARLINGTON, VA 22202

EXAMINER
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NGUYEN, LINH THI

ART UNIT	PAPER NUMBER
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2627

DATE MAILED: 05/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/525,766	<b>Applicant(s)</b> HORIKAWA ET AL.	
	<b>Examiner</b> Linh T. Nguyen	<b>Art Unit</b> 2627	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 February 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being unpatentable by Koichiro (JP Publication 11102523).

In regards to claims 1 and 8, Koichiro discloses an information recording apparatus (Fig. 1) which irradiates a laser light on a recording medium and forms recording marks corresponding to recording data (Paragraph [0025]), and a method comprising: a light source which emits the laser light (Paragraph [0024]); a recording waveform generating unit (Fig. 1 element 12) which generates a recording pulse waveform varying between a first level and a second level based on the recording data (Fig. 4); and a recording unit which drives the light source based on the recording pulse waveform to form the recording marks on the recording medium (Paragraph [0025], lines 7-8), wherein the recording waveform generating unit adjusts an edge position of a pulse portion having the second level in the recording pulse waveform in accordance with the first level (Fig. 4-2).

In regards to claim 2, Koichiro discloses the information recording apparatus according to claim 1, wherein the recording waveform generating unit comprises: a level determining unit which determines the first level (Fig. 5-2; P1); and an adjustment unit

which compares the first level with a predetermined reference level and adjusts the edge position based on a comparison result (Paragraph [0039], lines 4-8).

In regards to claim 3, Koichiro discloses the information recording apparatus according to claim 2, wherein the adjustment unit shifts a front edge of the pulse portion backward when the first level is higher than the reference level, and shifts the front edge of the pulse portion forward when the first level is lower than the reference level (Paragraph [0039], lines 4-8).

In regards to claim 4, Koichiro discloses the information recording apparatus according to claim 1, wherein the recording pulse waveform comprises a top pulse, and wherein the recording waveform generating unit adjusts a front edge position of the top pulse (Fig. 4-1, adjust the power from Ph2 to Ph1).

In regards to claim 5, Koichiro discloses the information recording apparatus according to claim 4, wherein the recording pulse waveform further comprises one or more multi-pulse (Fig. 4), and wherein the recording waveform generating unit adjusts a front edge position of each multi-pulse (Fig. 4-1, adjust from PL to the Ph1).

In regards to claim 6, Koichiro discloses the information recording apparatus according to claim 1, wherein the recording waveform generating unit adjusts the edge position of the pulse portion to vary a pulse width of the pulse portion (Fig. 4, the edge of the first pulse vary from the second pulse).

In regards to claim 7, Koichiro discloses the information recording apparatus according to claim 1, wherein the recording pulse waveform comprises one top pulse and one or more multi-pulse (Fig. 4), and wherein the recording waveform generating

unit adjusts the front edge position of the top pulse in accordance with a level in a period before the top pulse (Fig. 4-1), and adjusts each front edge position of the plural multi-pulses in accordance with the level between the plural multi-pulses (Fig. 4-2).

### ***Conclusion***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh T. Nguyen whose telephone number is 571-272-5513. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A. Wellington can be reached on 571-272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LN  
May 12, 2006

  
ANDREA WELLINGTON  
SUPERVISORY PATENT EXAMINER